



[7590-01-P]

**NUCLEAR REGULATORY COMMISSION**

**[NRC-2015-0207]**

**Spent Fuel Transportation Package Response to the MacArthur Maze Fire Scenario**

**AGENCY:** Nuclear Regulatory Commission.

**ACTION:** Draft NUREG/CR; request for comment.

**SUMMARY:** The U.S. Nuclear Regulatory Commission (NRC) is issuing for public comment a draft NUREG/CR, NUREG/CR-7206, "Spent Fuel Transportation Package Response to the MacArthur Maze Fire Scenario." This report presents analyses that were performed to examine the hypothetical effects on a spent fuel transportation package from conditions during the MacArthur Maze accident in 2007. The analyses undertaken include FDS fire modeling, physical examination of material samples, ANSYS and COBRA-SFS code thermal modeling of a GA-4 package, ANSYS and LS-DYNA structural and thermal-structural modeling of the roadway and package, and fuel performance modeling using the FRAPTRAN-1.4, FRAPCON-3.4, and DATING codes. The estimated release from the hypothetical scenario is below the prescribed limit for safety.

**DATES:** Submit comments by **[INSERT DATE 60 DAYS FROM DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**. Comments received after this date will be considered if it is practical to do so, but the Commission is able to ensure consideration only for comments received before this date.

**ADDRESSES:** You may submit comments by any of the following methods (unless this document describes a different method for submitting comments on a specific subject):

- **Federal Rulemaking Web Site:** Go to <http://www.regulations.gov> and search for Docket ID **NRC-2015-0207**. Address questions about NRC dockets to Carol Gallagher; telephone: 301-415-3463; e-mail: [Carol.Gallagher@nrc.gov](mailto:Carol.Gallagher@nrc.gov). For technical questions, contact the individual listed in the FOR FURTHER INFORMATION CONTACT section of this document.

- **Mail comments to:** Cindy Bladey, Office of Administration, Mail Stop: OWFN-12-H08, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001.

For additional direction on obtaining information and submitting comments, see “Obtaining Information and Submitting Comments” in the SUPPLEMENTARY INFORMATION section of this document.

**FOR FURTHER INFORMATION CONTACT:** Joseph Borowsky, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission Washington, DC 20555-0001; telephone: 301-415-7407; e-mail: [Joseph.Borowsky@nrc.gov](mailto:Joseph.Borowsky@nrc.gov).

## **SUPPLEMENTARY INFORMATION:**

### **I. Obtaining Information and Submitting Comments**

#### **A. Obtaining Information**

Please refer to Docket ID **NRC-2015-0207** when contacting the NRC about the availability of information for this action. You may obtain publicly-available information related to this action by any of the following methods:

- **Federal rulemaking Web Site:** Go to <http://www.regulations.gov> and search for Docket ID **NRC-2015-0207**.

- **NRC's Agencywide Documents Access and Management System (ADAMS):**

You may obtain publicly-available documents online in the ADAMS Public Documents collection at <http://www.nrc.gov/reading-rm/adams.html>. To begin the search, select "[ADAMS Public Documents](#)" and then select "[Begin Web-based ADAMS Search](#)." For problems with ADAMS, please contact the NRC's Public Document Room (PDR) reference staff at 1-800-397-4209, 301-415-4737, or by e-mail to [pdr.resource@nrc.gov](mailto:pdr.resource@nrc.gov). The draft NUREG/CR, "Spent Fuel Transportation Package Response to the MacArthur Maze Fire Scenario" is available in ADAMS under Accession No. ML15350A213.

- **NRC's PDR:** You may examine and purchase copies of public documents at the NRC's PDR, Room O1-F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852.

## B. Submitting Comments

Please include Docket ID **NRC-2015-0207** in your comment submission.

The NRC cautions you not to include identifying or contact information that you do not want to be publicly disclosed in your comment submission. The NRC posts all comment submissions at <http://www.regulations.gov> as well as entering the comment submissions into ADAMS. The NRC does not routinely edit comment submissions to remove identifying or contact information.

If you are requesting or aggregating comments from other persons for submission to the NRC, then you should inform those persons not to include identifying or contact information that they do not want to be publicly disclosed in their comment submission. Your request should state that the NRC does not routinely edit comment submissions to remove such information before making the comment submissions available to the public or entering the comment submissions into ADAMS.

## II. Discussion

The NRC is issuing draft NUREG/CR “Spent Fuel Transportation Package Response to the MacArthur Maze Fire Scenario.” This report presents analyses that were performed to examine the hypothetical effects on a spent fuel transportation package from conditions during the MacArthur Maze accident in 2007. The analyses undertaken include FDS fire modeling, physical examination of material samples, ANSYS and COBRA-SFS code thermal modeling of a GA-4 package, ANSYS and LS-DYNA structural and thermal-structural modeling of the roadway and package, and fuel performance modeling using the FRAPTRAN-1.4, FRAPCON-3.4, and DATING codes. The estimated release from the hypothetical scenario is below the prescribed limit for safety.

The purpose of this notice is to provide the public with an opportunity to review and provide comments on draft NUREG/CR-7206, “Spent Fuel Transportation Package Response to the MacArthur Maze Fire Scenario”. Any comments received will be considered in the final version or subsequent revisions of the draft NUREG/CR.

Dated at Rockville, Maryland, this 17th day of December, 2015.

For the Nuclear Regulatory Commission.

Christian Araguas, Chief,  
Containment, Structural, and Thermal Branch,  
Division of Spent Fuel Management,  
Office of Nuclear Materials Safety  
and Safeguards.

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